

U.S. SERIAL NO.: 08/781,296  
FILED: January 13, 1997  
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**DISCLOSURE STATEMENT MAILED JANUARY 14, 1999 (WHICH ENCLOSED COPIES OF 117 PUBLICATIONS) NOR FOR THE SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT MAILED JUNE 21, 1999.** Since the next action in this case is likely to be another Appeal to the Board of Appeals, the record needs to be clarified.

**Priority Claim**

The issue of priority also needs to be resolved. Applicants have properly claimed priority to U.S.S.N. 08/160,604. Applicants have provided the basis for the priority claim. The examiner's response has been to state that the applicants are not entitled to priority. This is clearly improper. If priority is to be denied, the examiner is obligated to fully respond to applicant's basis for the priority claim so that this issue may be fully argued on appeal.

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### In The Claims

27. (presently fourth time amended) A peptide composition comprising a peptide molecule consisting of about forty amino acids or less and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7), GPQRRGGDNHGRGRGRGRGRGGGRPG (SEQ ID NO:13), GSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSIGCKGTHGGTG (SEQ ID NO:16), GTGAGAGARGRG (SEQ ID NO:17), SGGRGRGG (SEQ ID NO:18), RGGSGRRGRGR (SEQ ID NO:19), RARGRGRGRGEKRPRS (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), ~~PGAIEQGPA (SEQ ID NO:24)~~, GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), DGRRKKGGWFGKHR (SEQ ID NO:27), GKHRGQGSN (SEQ ID NO:28), GQGGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSEDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38) and combinations thereof or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule.
28. (presently fourth time amended) A method comprising administering to a individual a peptide composition comprising a peptide molecule consisting of about forty amino acids or less

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and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7), GPQRRGGDNHGRGRGRGRGRGGGRPG (SEQ ID NO:13), GGSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSIGCKGTHGGTG (SEQ ID NO:16), GTGAGAGARGRG (SEQ ID NO:17), SGGRG (SEQ ID NO:18), RGGSGRRGRGR (SEQ ID NO:19), RARGRGRGRGEKPR (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), ~~PGAEQGP~~ (SEQ ID NO:24), GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), , GKHRGQGGSN (SEQ ID NO:28), GQGGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSEDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38), and combinations or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule, and wherein the composition is in a pharmaceutically acceptable carrier for administration of the composition in an amount and mode of administration effective to induce tolerance to ~~EBV-associated immune~~ EBV-induced autoimmune responses characterized by the presence of autoantibodies.

29. (previously once amended) The composition of claim 27 wherein the peptide molecules are in a pharmaceutically acceptable carrier for administration of the composition in

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an amount and mode of administration effective to induce tolerance to EBV-associated immune responses.

30. (previously added) The peptide molecules of claim 27 immobilized to a solid support.
31. (previously added) The peptide molecules of claim 27 labeled with a detectable label.
32. (previously added) The peptide molecules of claim 30 immobilized to multiwell plates.
33. (previously added) The peptide molecules of claim 30 immobilized to a gel suitable for affinity chromatography.
34. (previously added) The peptide molecules of claim 27 bound by autoantibodies in patients characterized by specific disorders.
35. (previously twice amended) A method for determining the likelihood that an individual has or will develop an autoimmune disorder comprising screening their antibodies for reactivity with a peptide molecule consisting of about forty amino acids or less and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7), GPQRRGGDNHGRGRGRGRGRGGGRPG (SEQ ID NO:13), GGSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSICGCKGTHGGTG (SEQ ID NO:16),

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GTGAGAGARGRGG (SEQ ID NO:17), SGGRGRGG (SEQ ID NO:18), RGGSGGRRGRGR (SEQ ID NO:19), RARGRGRGRGEKRPRS (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), PGAIEQGPA (SEQ ID NO:24), GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), DGGRKKGGWFGKHR (SEQ ID NO:27), GKHRGQGGSN (SEQ ID NO:28), GQGGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38) and combinations or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule.

36. (previously added) The method of claim 35 wherein the peptide molecules are immobilized to a solid support.

37. (previously added) The method of claim 35 wherein the peptide molecules are labeled with a detectable label.

38. (previously added) The method of claim 36 wherein the peptide molecules are immobilized to multiwell plates.

39. (previously added) The method of claim 35 wherein the peptide molecules are immobilized to a gel suitable for affinity chromatography.

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40. (previously added) The method of claim 35 wherein the peptide molecules are bound by autoantibodies in patients characterized by specific disorders.

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**APPENDIX: CLEAN COPY OF ALL CLAIMS AS PENDING UPON ENTRY OF  
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27. (presently fourth time amended) A peptide composition comprising a peptide molecule consisting of about forty amino acids or less and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7), GPQRRGGDNHGRGRGRGRGRGGGRPG (SEQ ID NO:13), GGSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSIGCKGTHGGTG (SEQ ID NO:16), GTGAGAGARGRGG (SEQ ID NO:17), SGGRGRGG (SEQ ID NO:18), RGGSGGRRGRGR (SEQ ID NO:19), RARGRGRGRGEKRPRS (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), DGGRRKKGGWFGKHR (SEQ ID NO:27), GKHRGQGSN (SEQ ID NO:28), GQGGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSDDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38) and combinations thereof or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule.

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28. (presently fourth time amended) A method comprising administering to an individual a peptide composition comprising a peptide molecule consisting of about forty amino acids or less and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7), GPQRRGGDNHGRGRGRGRGRGGGRPG (SEQ ID NO:13), GGSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSIGCKGTHGGTG (SEQ ID NO:16), GTGAGAGARGRGG (SEQ ID NO:17), SGGRRGG (SEQ ID NO:18), RGGSGRRGRGR (SEQ ID NO:19), RARGRRGRGEKRPRS (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), , GKHRGQGGSN (SEQ ID NO:28), GQGGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSFDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38), and combinations or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule, and wherein the composition is in a pharmaceutically acceptable carrier for administration of the composition in an amount and mode of administration effective to induce tolerance to EBV-induced autoimmune responses characterized by the presence of autoantibodies.



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29. (previously once amended) The composition of claim 27 wherein the peptide molecules are in a pharmaceutically acceptable carrier for administration of the composition in an amount and mode of administration effective to induce tolerance to EBV-associated immune responses.

30. (previously added) The peptide molecules of claim 27 immobilized to a solid support.

31. (previously added) The peptide molecules of claim 27 labeled with a detectable label.

32. (previously added) The peptide molecules of claim 30 immobilized to multiwell plates.

33. (previously added) The peptide molecules of claim 30 immobilized to a gel suitable for affinity chromatography.

34. (previously added) The peptide molecules of claim 27 bound by autoantibodies in patients characterized by specific disorders.

35. (previously twice amended) A method for determining the likelihood that an individual has or will develop an autoimmune disorder comprising screening their antibodies for reactivity with a peptide molecule consisting of about forty amino acids or less and comprising a peptide sequence selected from the group consisting of PPPGRRP (SEQ ID NO:1), GRGRGRGG (SEQ ID NO:2), RGRGREK (SEQ ID NO:3), GAGAGAGAGAGAGAGAGAGAGAGA (SEQ ID NO:7),

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GPQRRGGDNHGRGRGRGRGGGRPG (SEQ ID NO:13), GGSGSGPRHRDGVRRPQKRP (SEQ ID NO:14), RPQKRPS (SEQ ID NO:15), QKRPSIGCKGTHGGTG (SEQ ID NO:16), GTGAGAGARGRG (SEQ ID NO:17), SGGRRGG (SEQ ID NO:18), RGGSGRRGRGR (SEQ ID NO:19), RARGRRGRGKRP (SEQ ID NO:20), SSSSGSPRRPPPGR (SEQ ID NO:21), RPPPGRRPFFHPVGEADYFEYHQEG (SEQ ID NO:22), PDVPPGAI (SEQ ID NO:23), PGAIEQGPA (SEQ ID NO:24), GPSTGPRG (SEQ ID NO:25), GQGDGGRRK (SEQ ID NO:26), DGGRRKKGGWFGKHR (SEQ ID NO:27), GKHRGQGSN (SEQ ID NO:28), GQGSNPK (SEQ ID NO:29), NPKFENIA (SEQ ID NO:30), RSHVERTT (SEQ ID NO:31), VFVYGGSKT (SEQ ID NO:32), GSKTSLYNL (SEQ ID NO:33), GMAPGPGP (SEQ ID NO:34), PQGPLRE (SEQ ID NO:35), CNIRVTVC (SEQ ID NO:36), RVTVCSEDDG (SEQ ID NO:37), PPWFPPMVEG (SEQ ID NO:38) and combinations or portions thereof sufficient to react with autoantibody, wherein the peptide is present either in free form or bound to a carrier molecule.

36. (previously added) The method of claim 35 wherein the peptide molecules are immobilized to a solid support.

37. (previously added) The method of claim 35 wherein the peptide molecules are labeled with a detectable label.

38. (previously added) The method of claim 36 wherein the peptide molecules are immobilized to multiwell plates.

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39. (previously added) The method of claim 35 wherein the peptide molecules are immobilized to a gel suitable for affinity chromatography.

40. (previously added) The method of claim 35 wherein the peptide molecules are bound by autoantibodies in patients characterized by specific disorders.